Bureau of Naturopathic Medicine

A Bureau of the California Department of Consumer Affairs

Findings and Recommendations Regarding the Prescribing and Furnishing Authority of a Naturopathic Doctor

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* For copies of items listed in the appendix, please contact the Bureau of Naturopathic Medicine at (916) 574-7991 or naturopathic@dca.ca.gov

Acknowledgements

The Bureau of Naturopathic Medicine charged the Formulary Committee with developing specific findings and recommendations to be presented in this report to the Legislature. The Committee members unanimously agreed upon the findings and recommendations presented in this report. Although some of the recommendations crossover between recommending statutory and/or regulatory changes, all recommendations were included so that a complete picture could be presented to the Legislature.

The Bureau would like to acknowledge and thank all the members of this Committee for their hard work and dedication. The Formulary Committee held 15 committee meetings over the last year. Suffice it to say that this was an arduous process.

As the Bureau Chief, I was impressed by the commitment on the part of each member of this Committee. They served without compensation giving graciously of their weekends, evenings and overall time to share their vast knowledge and invaluable professional expertise. This report speaks to the facts gathered, research done, and the outcome of specific recommendations.

What is not articulated in this report, and I attempt to describe here, is the process that went into its creation. What cannot be so easily captured are the discussions, opinions, agreements and at times disagreements that took place among the Committee members. It would have been easy to rush through this process in only a few meetings, do a cursory review of the items that were requested to be looked at and draft this report. Even though they were not compensated for any of their time serving on this committee, they didn't rush through this process. Each committee member worked diligently, deliberately, carefully and thoughtfully on each and every recommendation that was included in this report. It would have been easy to pass recommendations with a majority vote, but they didn't. They were committed to working through each issue that arose, resolving differences, understanding each other's viewpoints and ultimately reaching a consensus. When they could not agree, they did not include it as a recommendation or modified existing recommendations to ensure each member agreed with what is presented in this report. Patient safety and efficacy remained of utmost importance.

The Bureau further extends its gratitude to Peter Wannigman, Naturopathic Doctor and Pharmacist, for serving as the Chairperson of this Committee and as such putting in countless hours of research time. Further, a special thank you to the Committee's Vice-Chair, Soram Singh Khalsa, MD, for graciously hosting numerous Committee meetings at his office.

The Bureau, along with the Committee, would like to also extend gratitude to special consultants, Dr. Virginia Osborne, National College of Naturopathic Medicine, Dr. Craig Runbeck, Executive Director, Arizona Naturopathic Physician Board of Medical Examiners, and Professor Debra Wollner, Southwest College of Naturopathic Medicine, for their invaluable assistance and expertise.

I am very pleased to have served as the Bureau Chief during the development of this report and to be able to present this report with the unanimous findings and recommendations of this Committee. Without their extensive knowledge, experience, and commitment to the field of naturopathic medicine, these reports would not have been possible.

Sincerely,

Tonya Blood, Chief
Bureau of Naturopathic Medicine

Introduction

Senate Bill 907 (Burton; Chapter 485, Statutes of 2003) established the Naturopathic Doctors Act (the Act) and created the Bureau of Naturopathic Medicine (the Bureau) within the Department of Consumer Affairs to administer the Act. The Act sets up criteria for the licensure and regulation of Naturopathic Doctors (NDs), and establishes a scope of practice for the profession.

SB 907 specified (Business and Professions Code Sec. 3627[1]):

- The Bureau shall establish a naturopathic formulary advisory committee (the Committee) to determine the naturopathic formulary based upon a review of naturopathic medical education and training.

- The Committee shall be composed of an equal number of representatives from the clinical and academic settings of physicians and surgeons, pharmacists, and naturopathic doctors.

- The Committee shall review naturopathic education, training, and practice and make specific recommendations regarding the prescribing, ordering, and furnishing authority of a naturopathic doctor and the required supervision and protocols for those functions.

- The Bureau shall make recommendations to the Legislature no later than January 1, 2006, regarding the prescribing and furnishing authority of an ND and the required supervision and protocols, including those for the utilization of intravenous and ocular routes of prescription drug administration.

- The Committee and the Bureau shall consult with physicians and surgeons, pharmacists, and licensed naturopathic doctors in developing the findings and recommendations submitted to the Legislature.

Assembly Bill 302 (Committee on Business and Professions; Chapter 506, Statutes of 2005) extended the date that the Bureau was to make recommendations to the Legislature to January 1, 2007. The purpose of this report is to fulfill that legislative mandate.

[1] All further section references are to the Business and Professions Code, unless otherwise indicated.

Naturopathic Formulary Advisory Committee

The Naturopathic Formulary Advisory Committee (the Committee) was appointed by Charlene Zettel, Director of the Department of Consumers Affairs. The Committee is chaired by Dr. Peter Wannigman, a pharmacist and ND, and is vice-chaired by Dr. Soram Singh Khalsa, a medical doctor. The Committee consists of three pharmacists, three medical doctors, and three NDs. The committee first met on June 26, 2005, and has met every 4-6 weeks for over a year to determine the recommendations included in this report. Biographies of the committee members are contained in the Appendix.

Brief History of Naturopathic Medicine

Naturopathic medicine is one of the oldest continuously licensed health care professions in the country. Its roots lie in German traditions of "Water Cure" or hydrotherapy advocated by Sebastian Kneipp in the mid-19th century. Dr. Benedict Lust, considered to be the Father of Naturopathic Medicine, expanded upon the European water cure and herbal therapies to develop a comprehensive philosophy and system of health which he brought to the United States around the turn of the century.

In 1901, Dr. Lust opened the American School of Naturopathy in Manhattan. Its approach emphasized diet, exercise, physical medicine, herbs, and homeopathy as ways to improve and maintain good health. Naturopathic medicine grew quickly as a profession and by 1925 there were approximately 2,500 practicing naturopathic doctors and more than a dozen schools. During this period, regulations were enacted in many states, with about half of the states licensing or regulating naturopathic medicine. This rise in popularity created strong opposition from allopathic medicine, which labeled naturopathic medicine as "quackery."

Naturopathic medicine experienced a significant decline in popularity from the post World War II era until the 1970s as most health care at that time centered on the allopathic medical model and the increased use and development of drugs and antibiotics. In the 1970s, with increased interest in holistic and alternative health care, naturopathic medicine experienced a resurgence of interest with expanded educational programs and state licensure. In the past 30 years, naturopathic medicine has experienced dramatic growth with new schools being established, standardization of education and accreditation, and expanded research on safety and efficacy of naturopathic practices.

In 2003, California became the 13th state to recognize naturopathic medicine and provide licensure to naturopathic doctors.

Naturopathic Medicine Today

Naturopathic medicine is a distinct and comprehensive system of primary health care that uses natural methods and substances to support and stimulate the body's self-healing process.

Currently, 14 states, the District of Columbia, and the US territories of Puerto Rico and the U.S. Virgin Islands have licensing laws for naturopathic doctors. The Alliance for State Licensing (Alliance) is a group of representatives from various state naturopathic associations that align with each other to share information, support, and experience in their quest for licensure, under the auspices of the American Association of Naturopathic Physicians. According to the Alliance, the states of Colorado, Florida, Illinois, Massachusetts, Minnesota, New Mexico, New York, and Virginia have introduced legislation during the last year or will be introducing legislation next year. The states of Maryland, Michigan, Nevada, Ohio, Pennsylvania, Texas, and Wisconsin are moving towards legislation in the near future.

Although the scope of practice varies widely from state to state, all naturopathic doctors abide by the same six principles:

- **The Healing Power of Nature**:
  Naturopathic medicine recognizes an inherent healing process in the person that is ordered and intelligent. The body is capable of healing itself. The role of the naturopathic doctor is to identify and remove obstacles to healing and recovery and to facilitate and augment this inherent natural tendency of the body.

- **Identify and Treat the Cause:**
  Naturopathic doctors seek to identify and remove the underlying causes of illness, not merely eliminate or suppress symptoms.

- **First Do No Harm:**
  Naturopathic doctors follow three guidelines to avoid harming patients:
  1. Utilize methods and medicinal substances that minimize risks of side effects, using the least force needed to diagnose and treat.
  2. Avoid, when possible, the harmful suppression of symptoms.
  3. Acknowledge and work with the individual's self-healing process.

- **Doctor as Teacher:**
  Naturopathic doctors recall that the origin of the word "doctor" is the Latin word, "to teach." A fundamental emphasis in naturopathic medicine is patient education.

- **Treat the Whole Person:**
  Naturopathic doctors attempt to take into consideration all the factors that make up patients' lives and affect their health and well-being.

- **Prevention:**
  Naturopathic medicine emphasizes the prevention of disease, assesses risk factors, and makes appropriate interventions with patients to prevent illness.

Most naturopathic doctors provide primary care natural medicine through office-based, private practice. In states where NDs have been licensed for many years, they often work in collaboration with medical doctors, and routinely refer patients to each other for optimum management of a patient's healthcare.

Bureau Information

The Act, which created the Bureau, was effective January 1, 2004. Before the Bureau could issue any licenses, a Bureau Chief and staff were hired. Equipment was purchased to support the Bureau's activities. Emergency regulations were drafted to implement the Act. An application process was developed, files were set up, application forms and a website were created. The first ND license was issued on January 14, 2005. There are currently 211 newly licensed NDs in California.

The Bureau is staffed by one full-time analyst. The analyst is responsible for all activities of the Bureau, including answering phones, analyzing qualifications for licensure, issuing licenses, responding to correspondence, coordinating legislative, regulatory, and budgetary activities, preparing reports, and administering all disciplinary and enforcement activities. The Bureau is completely funded by application and licensing fees.

Requirements for Licensure

In order to be licensed as an ND in California, the Act and the California Code of Regulations require an applicant to:

- Have obtained a degree in naturopathic medicine from an approved naturopathic medical school. (Section 3630)
- Pass Parts I and II of the Naturopathic Physicians Licensing Examination [An applicant who graduated prior to 1986 must have passed a state or Canadian provincial exam.] (Section 3631)
- Submit fingerprints, and not have been convicted of any crime that would be grounds to deny licensure. (Sections 144, 480, 3630)
- Request verification of good standing for any other licenses held in California or another state be submitted directly to the Bureau from the licensing entity. (Section 3633)

- Pay to the Bureau an application fee of $400 and an initial license fee of $800, prorated, which is renewed biennially (Title 16 C.C.R. § 4240).

Furnishing and Ordering Drugs

If an applicant or ND wishes to furnish or order drugs or dangerous devices, they must first receive a furnishing number issued by the Bureau, and registration with the United States Drug Enforcement Agency, if required. In order to qualify for a furnishing number, the Act requires that an applicant or ND must show evidence of 48 hours of instruction in pharmacology that included the pharmacokinetic and pharmacodynamic principles and properties of the drugs to be ordered or furnished under the provisions of the Act. To comply with this requirement, the instruction must have been offered by one of the following (Title 16 C.C.R. § 4212):

- An approved naturopathic medical school.
- An institution of higher learning that offers a baccalaureate or higher degree in medicine, nursing, pharmacy, or public health.
- An educational institution or provider with standards and course content that are equivalent, as determined by the Bureau.

Education and Training

An applicant for licensure must have graduated from a naturopathic medical education program accredited by the Council on Naturopathic Medical Education (CNME). For accreditation, the schools must meet the following minimum requirements (Section 3623):

- Admission requirements that include a minimum of three-quarters of the credits required for a bachelor's degree from a regionally accredited or preaccredited college or university or the equivalency, as determined by the council.

- Program requirements for its degree or diploma of a minimum of 4,100 total hours in basic and clinical sciences, naturopathic philosophy, naturopathic modalities, and naturopathic medicine. Of the total requisite hours, not less than 2,500 hours shall consist of academic instruction, and not less than 1,200 hours shall consist of supervised clinical training approved by the naturopathic medical school.

- A naturopathic medical education program in the United States shall offer graduate-level full-time studies and training leading to the degree of Doctor of Naturopathy or Doctor of Naturopathic Medicine. The program shall be an institution, or part of an institution of, higher education that is either accredited or is a candidate for accreditation by a regional institutional accrediting agency recognized by the United States Secretary of Education and the

Council on Naturopathic Medical Education, or an equivalent federally recognized accrediting body for naturopathic doctor education.

- To qualify as an approved naturopathic medical school, a naturopathic medical program located in Canada or the United States shall offer a full-time, doctoral-level, naturopathic medical education program with its graduates being eligible to apply to the Bureau for licensure and to the North American Board of Naturopathic Examiners that administers the naturopathic licensing examination.

Approved Schools

To be eligible for licensure in California, an applicant must have graduated from one of six approved naturopathic medical schools. Each of these schools has met the requirements listed above for accreditation by CNME. Four of the approved schools are located within the United States and two are in Canada. A brief synopsis of the schools is given below. As can be seen below, the number of pharmacology hours required for graduation at the approved schools varies from 42 to 110. More detailed information on each of the schools, including admission requirements and curriculum may be found in the Appendix.

School	Year Established	Class Size*	Pharmacology Hours Required for Graduation
National College of Naturopathic Medicine Portland, Oregon	1956	81	72 hours
Bastyr University Seattle, Washington	1977	260	55 hours
Southwest College of Naturopathic Medicine and Health Sciences Scottsdale, Arizona	1993	65	110 hours
University of Bridgeport College of Naturopathic Medicine Bridgeport, Connecticut	1996	19	44 hours
Canadian Naturopathic Medical College Toronto, Ontario, Canada	1978	135	110 hours
Boucher Institute of Naturopathic Medicine New Westminster, British Columbia, Canada	2001	16	42 hours
***** Number of graduates in 2006.			

Naturopathic Physicians Licensing Examination

In order to qualify for licensure, NDs must take and pass Parts I and II of the Naturopathic Physicians Licensing Examination (NPLEX). The NPLEX is a rigorous, standardized licensing examination that is used in all states that license NDs. Administered by the North American Board of Naturopathic Examiners (NABNE), the NPLEX became the first national test, replacing state exams in 1986.

Part I of the NPLEX, the Basic Science Examinations, is designed to test the naturopathic student's skills and knowledge prior to his or her clinical training. Students are encouraged to take this portion of the examination as soon as they finish their basic science coursework. Part I is composed of five individual exams. Candidates are given 60 minutes to complete each of the five exams:

- Anatomy
- Physiology
- Biochemistry
- Microbiology
- Pathology

A student must pass Part I of the exam before being allowed to sit for Part II.

Part II, the Core Clinical Science Examination, consists of eight separate exams which are designed to test the skills and knowledge that an ND needs in order to practice safely. The eight separate exams in Part II are:

- Physical & Clinical Diagnosis
- Lab Diagnosis & Diagnostic Imaging
- Emergency Medicine
- Botanical Medicine
- Pharmacology
- Nutrition
- Psychology
- Physical Medicine

Examinees have 180 minutes (3 hours) to complete the Physical & Clinical Diagnosis Examination (150 items), 90 minutes to complete the Lab Diagnosis & Diagnostic Imaging Examination (75 items), and 60 minutes to complete each of the other examinations. Part II of the NPLEX is taken over a two-day period.

Beginning with the August 2007 NPLEX Exam administration, the Part II - Core Clinical Science Series will be integrated into a single examination that will include Homeopathy. In comparison to the current exam format which consists of 50 to 150 "stand-alone" questions on each of the eight exams, the integrated

exam format will consist of extensive clinical case summaries for which the candidate must answer a series of questions relevant to diagnosis and treatment for each case.

Part I of the examination is also being restructured and updated. The new integrated Part I of the examination will be administered to candidates beginning in 2008.

The Bureau must receive a report directly from NABNE with an applicant's passing scores on both Parts I and II of the NPLEX before a license will be issued.

The NPLEX is administered twice a year at six different test sites through the U.S. and Canada.

Continuing Education

In order to renew his or her license, an ND must satisfactorily complete 60 hours of approved continuing education biennially. (This requirement is waived for the first renewal.) The continuing education submitted must meet the following requirements (Section 3635):

- ***At least 20 hours shall be in pharmacotherapeutics.***
- No more than 15 hours may be in naturopathic medical journals or osteopathic or allopathic medical journals, or audio or videotaped presentations, slides, programmed instruction, or computer-assisted instruction or preceptorships.
- No more than 20 hours may be in any single topic.
- No more than 15 hours of the continuing education requirements for the specialty certificate in naturopathic childbirth attendance shall apply to the 60 hours of continuing education requirement.

The continuing education requirements may be met through continuing education courses approved by the California Naturopathic Doctors Association, the American Association of Naturopathic Physicians, the Medical Board of California, the California State Board of Pharmacy, the State Board of Chiropractic Examiners, or the Bureau.

Scope of Practice

The Act authorizes an ND to:

- Order and perform physical and laboratory examinations for diagnostic purposes, including, but not limited to, phlebotomy, clinical laboratory tests, speculum examinations, orificial examinations, and physiological function tests (Section 3640(a)).

- Order diagnostic imaging studies, including X-ray, ultrasound, mammogram, bone densitometry, and others, consistent with naturopathic training as determined by the Bureau, but shall refer the studies to an appropriately licensed health care professional to conduct the study and interpret the results (Section 3640(b)).

- Dispense, administer, order, and prescribe or perform the following (Section 3640(c)):

  (1) Food, extracts of food, nutraceuticals, vitamins, amino acids, minerals, enzymes, botanicals and their extracts, botanical medicines, homeopathic medicines, all dietary supplements and nonprescription drugs as defined by the federal Food, Drug, and Cosmetic Act, consistent with the routes of administration as specified.
  (2) Hot or cold hydrotherapy; naturopathic physical medicine inclusive of the manual use of massage, stretching, resistance, or joint play examination but exclusive of small amplitude movement at or beyond the end range of normal joint motion; electromagnetic energy; colon hydrotherapy; and therapeutic exercise.
  (3) Devices, including, but not limited to, therapeutic devices, barrier contraception, and durable medical equipment.
  (4) Health education and health counseling.
  (5) Repair and care incidental to superficial lacerations and abrasions, except suturing.
  (6) Removal of foreign bodies located in the superficial tissues.

- Utilize routes of administration that include oral, nasal, auricular, ocular, rectal, vaginal, transdermal, intradermal, subcutaneous, intravenous, and intramuscular (Section 3640(d)). [The Bureau's regulations (Title 16 C.C.R. § 4323(d)) further specify that an ND may only utilize the ocular and intravenous routes of administration if he or she is clinically competent in those areas.]

- Independently prescribe epinephrine to treat anaphylaxis, and natural and synthetic hormones (Section 3640.7).

- Furnish or order drugs, including Schedule III-V controlled substances, under supervision of a medical doctor, with requirements for standardized procedures and protocols identical to those for nurse practitioners (Section 3640.5).

The Act restricts an ND from performing any of the following functions (Section 3642):

- Prescribe, dispense, or administer a controlled substance, except as authorized.
- Administer therapeutic ionizing radiation or radioactive substances.
- Practice or claim to practice any other system or method of treatment for which licensure is required, unless otherwise licensed to do so.
- Administer general or spinal anesthesia.
- Perform an abortion.
- Perform any surgical procedure.
- Perform acupuncture or traditional Chinese and Asian medicine, including Chinese herbal medicine, unless also licensed in California as an acupuncturist.

COMMITTEE FINDINGS

Formulary Laws from Other States

As the scope of practice for NDs varies from state to state, so do the laws and regulations regarding prescribing. Of the 13 other states that license NDs, 9 of those states allow NDs to prescribe independently, without any MD supervision or protocol. Only one state, Kansas, which instituted licensure in 2003, requires MD supervision, and Maine requires collaboration with a physician for one year prior to independent prescribing.

State	ND Licensure Enacted	# of Current Active NDs	Prescriptive Authority	MD Supervision Required
Alaska	1986	40	No	No
Arizona	1935	375	Yes	No
Connecticut	1920	210	No	No
Hawaii	1925	85	Yes	No
Idaho	2005	8	Yes	No
Kansas	2003	11	Yes	Yes
Maine	1995	27	Yes	1 year
Montana	1991	67	Yes	No
New Hampshire	1994	57	No	No
Oregon	1927	715	Yes	No
Utah	1997	18	Yes	No
Vermont	1995	117	Yes	No
Washington	1919	802	Yes	No

The formularies for each state vary greatly. A brief summary is given below. The actual formularies may be viewed in the Appendix.

Arizona has the broadest formulary in the nation. Arizona NDs are allowed to independently prescribe all classes of prescription drugs, with 4 exceptions:

- IV medications (except vitamins, chelation therapy, and drugs used in emergency resuscitation and stabilization, which are allowed).
- Controlled substances listed as Schedule I or II (except morphine is allowed).
- Cancer chemotherapeutics classified as legend drugs.
- Antipsychotics.

To support this broad prescribing authority, Arizona passed HR 2028 in 2002. This bill required, as of January 1, 2005, that all NDs complete a 60-hour series of pharmacy courses and pass an examination. After that date, only NDs who have completed the additional training and passed the test in

pharmacotherapeutics are able to prescribe drugs and controlled substances. Southwest College in Tempe, Arizona has made this additional training part of their required curriculum for NDs.

Hawaii state law authorizes NDs to prescribe vitamins, minerals, amino acids, and fatty acids.

Idaho passed a bill in 2005 authorizing licensure of NDs. The bill creates a formulary council to establish a formulary for use by NDs that is consistent with the training and education of NDs. The formulary will be reviewed on an annual basis. To date, the formulary has not been completed.

Kansas passed an ND licensing law in 2003. It authorizes an intravenous and intramuscular formulary which must be under the supervision of a physician. Kansas is the only state, other than California, which requires continuous MD supervision for prescribing.

Maine NDs are allowed to independently prescribe noncontrolled legend drugs after completing a 12-month collaborative relationship with a licensed allopathic or osteopathic physician to review the NDs prescribing practices.

Montana law requires a five-member formulary committee to establish a natural substance formulary list and review the list on an annual basis. Among other items, the approved list of natural substances contains antibiotics and hormones.

Oregon NDs have wide prescribing authority. All substances on the formulary are recommended by the formulary council and approved by the State Board of Naturopathic Examiners.

Utah NDs are allowed to prescribe noncontrolled drugs that are consistent with competent practice of naturopathic medicine and are approved in collaboration with the Naturopathic Formulary Advisory Peer Committee.

Vermont law authorizes the Commissioner of Health to establish the formulary with the advice of advisory appointees. The formulary lists the substances that are authorized as well as their route of administration, and in some instances even the specific dose and length of treatment.

Washington state law was recently amended to allow NDs a broader formulary. HB 1546 of 2005 defined naturopathic medicines to mean “vitamins; minerals, botanical medicines; homeopathic medicines; hormones; and those legend drugs and controlled substances consistent with naturopathic medical practice in accordance with rules established by the secretary.” An updated formulary has not yet been completed.

Safety Record of ND Prescribing

In preparation for this report, the Bureau contacted the licensing agencies for each of the states that allow NDs to prescribe. None of the states reported any patient harm or disciplinary action due to ND prescribing. In addition, the states were not aware of any civil actions against NDs for prescribing.

The Bureau also contacted NCMIC Insurance Company. NCMIC insures NDs in all of the licensing states and also insures the naturopathic medical schools. In a letter to the Bureau dated June 7, 2006, NCMIC stated: "In the five years that NCMIC has been insuring Naturopathic Physicians and the colleges, we have never opened a claim against a Naturopathic Physician involving prescription medications." [See Appendix.]

Additionally, the Committee contacted Jury Verdicts Northwest (JVN) to see if there were any civil actions filed against a licensed ND. JVN covers both Oregon and Washington, the two states with the greatest number of NDs and that have been licensing NDs for a considerable length of time (since 1919 and 1927, respectively). JVN responded "Upon reviewing cases contained in Jury Verdicts Northwest's database we found no cases against naturopaths for prescription negligence, or for that matter our database contained no cases against naturopaths at all." [See Appendix.]

Why Do NDs Need to Prescribe?

The NIH National Center for Complementary and Alternative Medicine considers naturopathy a "major Western whole medical system" that "involves complete systems of theory and practice that have evolved independently from or parallel to allopathic (conventional) medicine." In 1987, the American Association of Naturopathic Physicians (AANP) began work on a consensus definition of naturopathic medicine for the modern era. The definition, unanimously adopted by the AANP's House of Delegates in 1989, focused on the guiding naturopathic principles and philosophy rather than specific therapeutic modalities or treatments. The definition reads:

> "Naturopathic medicine is a distinct system of primary health care - an art, science, philosophy and practice of diagnosis, treatment and prevention of illness. Naturopathic medicine is distinguished by the principles which underlie and determine its practice. These principles are based upon the objective observation of the nature of health and disease, and are continually reexamined in the light of scientific advances. Methods used are consistent with these principles and are chosen upon the basis of patient individuality. Naturopathic physicians are primary health care practitioners, whose diverse techniques include modern and traditional, scientific and empirical methods."

The AANP recommended that further work on practice principles move to the academic community. Throughout the 1990's clinical faculty and practitioners built on the core foundation throughout the 1990's. In 1997, "The Process of Healing, a Unifying Theory of Naturopathic Medicine" was published in the Journal of Naturopathic Medicine (Zeff). The article presented three principles underlying the practice of naturopathic medicine. The first of these is the characterization of disease as a *process* rather than a *pathologic entity.* The second is the focus on the determinants of health rather than on pathology. The third is the concept of a therapeutic hierarchy. As taught in naturopathic medical schools, the therapeutic hierarchy is a guideline to applying the modalities of naturopathic medicine according to unique needs of an individual patient.

1. Establish the conditions for health.
2. Stimulate the self-healing mechanisms (Vis Medicatrix Naturae).
3. Support weakened or damaged systems or organs.
4. Address structural integrity.
5. Address pathology using specific natural substances, modalities or interventions.
6. Address pathology using specific pharmacologic or synthetic substances.
7. Suppress pathology.

Here is an example of a child with Recurrent Otitis Media (ear infections), a common reason for seeking naturopathic care. Using the hierarchy above:

1. Look for and address obstacles to health - allergies, environmental irritants (e.g., 2nd hand cigarette smoke), diet high in simple sugars, etc.
2. Stimulate the healing power of nature with therapies like homeopathy and hydrotherapy.
3. Support affected systems such as immune support - Vitamins C and A, oligopolysaccharides; respiratory support with herbs like Hydrastis or Berberis.
4. Address structural factors with soft tissue manual therapy like lymphatic drainage.
5. Treat the pathology with specific natural therapies such as topical Garlic-Hypericum oil.
6. Typically children respond well experiencing fewer infections with faster recovery. Should a child experience a particularly severe ear infection, it may be necessary to prescribe a course of antibiotics.
7. If the infection does not subside, referral to a MD may be necessary.

Another scenario might involve a child who experiences significant relief and the parents bring the child in for a sore throat, that turns out to be Group A Strep. The safest, most effective, and most convenient treatment would be for the naturopathic doctor to prescribe a course of appropriate antibiotics.

A final example involves a patient who has relocated to a new area and chooses a local ND to be his or her primary care doctor. The patient has been on long-term high dose proton-pump inhibitors to decrease symptoms of GI reflux (heartburn). After facilitating the therapeutic hierarchy of naturopathic practice, it is only a short time before it becomes recognizable that the dose of the proton pump inhibitor is excessive and should be lowered (due to no exacerbation of symptoms nor any known underlying pathology from thorough review of diagnostic imaging). Thus, the ND writes a new prescription for a lower dose, or perhaps discontinues the medication and the patient is maintained in the "lower" levels of naturopathic hierarchy. It is important to note that modification of a pre-existing prescription can only be done legally if the ND has authority to prescribe the medication in the first place.

The Therapeutic Hierarchy creates a guideline for prescribing (or referring for) therapeutic life changes, homeopathic & botanical medicines, nutritional supplements, manipulative therapy and legend drugs by naturopathic doctors that is both consistent with the profession's principles and addresses the patient's dynamic needs (see Appendix).

Furnishing (or Ordering) vs. Prescribing

The Act authorizes NDs to both furnish drugs and prescribe certain items. Prescribing is done independent of MD supervision, and includes both natural substances such as vitamins, minerals, botanicals, and homeopathic medicines, as well as natural and synthetic hormones and epinephrine for anaphylaxis. NDs are also authorized to furnish or order other prescription drugs, which must be done under the supervision of a medical doctor, and authorizes other prescription drugs, including Schedule III-V controlled substances. Furnishing or ordering is done under procedures and protocols with the supervision of a medical doctor. The required procedures in the Act are identical to the procedures for nurse practitioners.

Inclusionary or Exclusionary Formulary

The Committee studied both inclusionary formularies and exclusionary formularies. An inclusionary formulary is a list of every drug or drug classification that is authorized to be prescribed. An exclusionary formulary is a list of drugs or drug classifications that are <u>not</u> allowed to be prescribed. Arizona is the only state that currently has an exclusionary formulary.

The Committee initially approved a broad exclusionary formulary, which would have allowed NDs to independently prescribe a large number of medications. A survey of education at the approved naturopathic schools showed that adequate education to support this enhanced prescribing could be completed by a postgraduate course, similar to one recently required for NDs in Arizona.

However, in the interest of ensuring maximum public safety and taking the most conservative approach, the final position of the Committee was to recommend a limited inclusionary formulary. The inclusionary formulary included in the recommendation section of this report was drafted with the intention of allowing for the use of the most common medications necessary for safe and efficacious use in primary care medicine. An ND would still need to qualify and receive a furnishing number as outlined in regulation, and would additionally have to complete 20 hours of pharmacology for each license renewal. The Committee determined that the inclusionary formulary would be the most functional for both NDs and pharmacists.

Formulary Upkeep

As can be seen from the information given above, most states appoint an advisory committee that has the authorization to create and update the state's ND formulary. Currently a statutory change would be necessary to allow the Bureau or a Committee to determine and update the formulary. It would be much easier for the Bureau through the Committee or the Naturopathic Advisory Council to update the formulary through regulation rather than through a more lengthy statutory process. This would be true particularly in the case of a drug that is later discovered to be unsafe, or if a safer more effective drug becomes available. In order to protect consumers, an emergency regulation could be adopted which would remove the unsafe drug from the formulary. Intravenous formulary upkeep should also be done by the Bureau through the regulatory process.

Routes of Administration Need to Be Clarified for Prescribing

Section 3640(d) of the Act states that "[a] naturopathic doctor may utilize routes of administration that include oral, nasal, auricular, ocular, rectal, vaginal, transdermal, intradermal, subcutaneous, intravenous, and intramuscular."

Section 3640 (c)(1) authorizes a naturopathic doctor to "dispense, administer, order, and prescribe or perform the following:

"'(1) Food, extracts of food, nutraceuticals, vitamins, amino acids, minerals, enzymes, botanicals and their extracts, botanical medicines, homeopathic medicines, all dietary supplements and nonprescription drugs as defined by the federal Food, Drug, and Cosmetic Act, ***consistent with the routes of administration identified in subdivision (d).***'" (Emphasis added.)

The sponsors of SB 907 (California Naturopathic Doctors Association) intended for naturopathic doctors to be able to administer the substances authorized by Section 3640(c)(1) through any of the authorized routes of administration, including intramuscular (IM) and intravenous (IV) when safe and appropriate. After SB 907 was passed, there was some confusion as to whether NDs were

authorized to prescribe for all the routes of administration specified in the Act. In order to clarify this perceived gray area, AB 302 added the phrase highlighted above "consistent with the routes of administration identified in subdivision (d)" to Section 3640(c)(1). It has been stated that perhaps the amendment should have been worded "***regardless*** of the route of administration." The Committee supports further amendments being made to the Act and the pharmacy laws in order to clarify that NDs are able to independently prescribe the substances in Section 3640(c)(1) for all routes of administration listed in Section 3640(d).

Current Furnishing Laws Are Untenable

Over the year of meetings held by the Committee, it was determined there is a limited number of MDs who have training in naturopathic philosophy or practice or who have had the extensive clinical experience in naturopathic modalities to make them appropriate supervisors for NDs in this area of care. The few physicians who are willing and well-trained for ND supervision are having difficulty getting malpractice coverage to do the supervision. The Bureau has had reports from both MDs who are having difficulty getting malpractice insurance and NDs who are having difficulty finding an MD supervisor. The Committee has concluded the supervision provision is untenable.

Additionally, although the Committee and the Bureau attempted several contacts with MD malpractice insurance companies, neither were able to find any malpractice insurance company willing to give us specific information about a cost or surcharge for an MD to supervise an ND. One of the large malpractice insurers indicated that it would not even consider insuring an MD to supervise an ND.

It should also be noted that the malpractice companies routinely insure MDs who supervise other medical professionals such as nurse practitioners and physician assistants. Both nurse practitioners and physician assistants have a lesser entry-level training and education requirement than NDs. Although most NDs carry their own malpractice insurance, it may be impossible for an MD to get insurance for the supervision requirement in the Act.

COMMITTEE RECOMMENDATIONS

There are two main factors to be considered when making recommendations for naturopathic medicine formulary laws. First, it is paramount that the act of prescribing or IV administration be done safely by a competently trained ND. Secondly, the substance being administered must be prepared in a way to provide for absolute patient safety. Both of these factors were considered by the Committee in many arduous discussions in order to prepare the recommendations provided in this report.

Recommendation # 1—Prescribing Laws Need to Be Clarified.

It was the intent of the sponsors of SB 907, and the intent of the clarification to Section 3640(c)(1) in AB 302 that NDs are to be recognized as independent intravenous and intramuscular prescribers for the substances listed in Section 3640(c)(1)--food, extracts of food, nutraceuticals, vitamins, amino acids, minerals, enzymes, botanicals and their extracts, botanical medicines, homeopathic medicines, all dietary supplements and nonprescription drugs as defined by the federal Food, Drug, and Cosmetic Act. The Committee recommends that statutory and/or regulatory changes be made to effectuate this clarification in the pharmacy laws and the Act.

Recommendation # 2—Regulation of the Ocular Route.

Section 3627 requires the Bureau to make recommendations regarding the required supervision and protocols for utilization of the ocular route of prescription drug administration. Section 4234(d) of Division 40 of Title 16 of the California Code of Regulations specifies that an ND may only use the ocular route of administration if he or she is clinically competent in that area. Clinical competence is defined as possessing and exercising the degree of learning, skill, care and experience ordinarily possessed and exercised by a member of the appropriate discipline in clinical practice. Use of the ocular route is limited by the authorized formulary (see Ophthalmic Agents in Recommendation #6). The Committee has determined that further regulation of this route is not necessary.

Recommendation # 3—IV Therapy Blueprint.

It is the intent of the Committee to protect the health and welfare of California consumers by ensuring the training and competency of NDs who use the intravenous route of administration. The Committee recommends that the Bureau implement a regulatory change that would require any ND who wishes to utilize the intravenous route of administration to complete a 25-hour continuing education course in IV administration, as specified.

Course Requirements:

- Courses are to be pre-approved by the Bureau, and are to contain a minimum of 25 contact hours. Of the 25 hours, 14 hours shall be identified as practicum.

Course Outline

I. Introduction, rational and history
II. Lab evaluation, pt fluid status, CV status, kidney function.
III. IV fluids, including mOsm calculations, diluents, admixtures, definitions pertinent to IV therapeutics,
IV. Equipment, supplies.
V. Sterile techniques, admixing.
VI. Vein/site selection, site preparation, insertion techniques
VII. Complications with therapies, errors and adverse reactions, reporting errors to appropriate agencies, error prevention, follow-up with patient complications, FDA Watch.
VIII. Emergency protocols, management and referral.
IX. Pharmacology, indications, preparation, adverse reactions, nutrient/drug interactions and administration of IV vitamins, minerals, electrolytes, amino acids, botanicals, biologicals, including DMPS.
X. Charting, standards of care, OSHA, certification standards
XI. Catheters/pic lines: standard of care for approach and management, co-management with medical providers.
XII. Practicum
  a. Observations of IV set up and administration—must observe at least 10.
  b. Successful completion of IV set up, administration and management—must complete at least 10.
XIII. Exam
Successful completion (70% or greater) of a minimum of 50 questions (10% or more of the questions must have direct content to California formulary categories).

Recommendation # 4—IV Formulary.

It is the recommendation of the Committee that NDs who have successfully completed an approved IV continuing education course as specified above be able to independently administer the following substances via the IV route of administration.

I. Category: Amino Acids and Glutathione

II. Category: Vitamins

III. Category: Minerals

IV. Category: Electrolytes, Sugars, and Diluents

V. Category: Chelating Agents:

⇒ Substances:

1. DMPS	2. EDTA

VI. Any substance that may be prescribed or furnished by an ND which is part of an Institutional Review Board (IRB) approved study.

Recommendation # 5—Chelation Blueprint.

It is recommended that any ND wishing to independently perform IV chelation complete a 12-hour continuing education course, as specified below, in addition to the IV therapy course. IV EDTA of chelation is to be used only for heavy metal detoxification, unless under the auspices of an IRB-approved research protocol.

CHELATION BLUEPRINT

Pre-requisites

- ✓ Maintain a current and valid license to practice naturopathic medicine in California.
- ✓ Successful completion of the 25-hour IV therapy course.

Content	Hours
Introduction	1.0
EDTA MOA Toxicology Adverse Reactions	2.5
Osmolarity and pH	0.5
EDTA Indications Benefits Contraindications Value Added Benefits of IV Admixture	1.0
Chelation Patient Qualification Optional testing Dosage and Frequency of Therapy	1.0
Office Procedures and Documentations	1.0
Patient Care Costs, Management, Case Presentations, Resources	3.0
Certification Exam	2.0
Total Hours	**12.0**

Recommendation # 6—Pharmaceutical Formulary.

It is recommended that changes be made to statutory law and subsequently to the Bureau's regulations to allow NDs to be able to independently prescribe, without supervision or protocol, from the formulary below (in addition to what is currently allowed by Section 3640.7). It is recommended that this formulary be included and maintained in the California Code of Regulations, rather than in statute. It is further recommended that a statutory change be made in order to require the Bureau in consultation with the Committee and the Naturopathic Advisory Council to review and update the naturopathic formulary on an annual basis. Changes to the formulary by the Bureau would be recommended by the Committee and approved by the Naturopathic Advisory Council.

ANTIBIOTICS
Amebecides
Antifungal agents
Antihelminthics
Antimalarial preparations (includes artemesin, derived from Artemesia annua)
Antiprotozoal agents
Antiviral agents
Bacitracin
Cephalosporins and related antibiotics
Fluroquinolones
Macrolides
Nitrofurantoins
Metronidazole
Neomycin
Nitrofurans
Penicillins
Quinalones
Sulfonamides
Tetracyclines

PAIN CONTROL AGENTS
Salicylates
NSAIDS
Opioid Analgesic Combinations - Schedules III, IV, and V only

DERMATOLOGICALS
Anti-fungals - topical
Anti-infectives, topical
Anti-inflammatory agents
Anti-psoriatic agents
excluding methotrexate
Antihistamine preparations, topical
Antiseborrheic products
Arnica
Counterirritants
Destructive agents
Dressings and granules
Drying agents
Eflornithine HCI
Enzyme preparations
Immunomodulators, topical
Irrigating solutions
Keratolytic agents
Local anesthetics
Topical
IM and SQ Bupivacaine, Lidocaine, and Procaine
IM and SQ Epinephrine
Minoxidil
Photochemotherapy
Pigment agents
Protectants
Pyrithione zinc
Retinoids — dermatologic (oral)
Rexinoids
Scabicides/pediculicides
Topical steroids

OPHTHALMIC AGENTS
Antibiotics
Mast cell stabilizers
Ophthalmic antihistamines
Otic antibiotics and combination preparations

RESPIRATORY AGENTS
Bronchodilators
Expectorants
Antihistamines
Antitussives and combined antitussives
Bronchodilators
Leukotriene formation inhibitors
Leukotriene receptor antagonists

GASTROINTESTINAL AGENTS
Proton pump inhibitors
Antidiarrheals
Gallstone Solubilizing Agents
H. pylori agents

CARDIOVASCULAR AGENTS
Anti-hyperlipidemic agents

RENAL AND GENITOURINARY AGENTS
Vaginal Preparations

DIAGNOSTIC AGENTS
In vitro Diagnostics Aids
In vivo Diagnostic Biologicals

VACCINES

ANTI-DIABETIC AGENTS

IV FORMULARY

I. Category: Amino Acids and Glutathione

II. Category: Vitamins

III. Category: Minerals

IV. Category: Electrolytes, Sugars, and Diluents

V. Category: Chelating Agents:

⇒ Substances:

3. DMPS	4. EDTA

VI. Any substance that may be prescribed or furnished by an ND which is part of an Institutional Review Board (IRB) approved study.

BIOGRAPHIES OF COMMITTEE MEMBERS

Peter Wannigman, ND/Pharmacist, Chair

Dr. Peter Wannigman (DocWanni) is a licensed Naturopathic Doctor (N.D.) and Registered Pharmacist (R.Ph.). This unique combination of degrees allows him the professional experience to integrate both naturopathic and allopathic paradigms of healthcare. His knowledge of drug therapy and natural therapeutics is especially well suited for patients interested in reducing or avoiding dependencies with prescription drug regimens, while at the same time he is an expert on developing professional, yet understandable treatment plans based on naturopathic principals.

For nearly two decades, Dr. Wannigman has been involved in service as a retail community pharmacist with Longs Drugs, with the majority of them spent living and working La Jolla. By making himself readily available for consultation, he garnered a strong following of patients who regularly sought his insight into their drug therapy as well as other health matters. His tenure also allowed him to develop professional relationships with physicians throughout the area as they worked closely in co-managing patient health care.

Dr. Wannigman received his Naturopathic Doctorate degree from Southwest College of Naturopathic Medicine in Tempe, Arizona. His degree in Pharmacy was earned from South Dakota State University in Brookings, South Dakota. He has post-graduate specialty certifications in Prolotherapy and Applied Kinesiology.

His contributions to medicine are not just limited to his patients, but are evident in his service to the naturopathic profession. He was appointed Chair to the Formulary Committee for the California Dept. of Consumer Affairs Bureau of Naturopathic Medicine. He also volunteered eight years of service to the California Naturopathic Doctors Association's legislative committee, directly participating in the architecture and writing of the Naturopathic Doctors Licensing Act, which became law in 2002. He possesses one of the inaugural licenses issued to Naturopathic Doctors in California.

It is Dr. Wannigman's interest in nutrition and detoxification, which is the base of his practice. These basic principals are infused in all areas of his practice, but become even more attractive when they are combined with his unique specialty practice of prolotherapy, and bio-identical hormone replacement. His goal is to develop successful relationships with his patients utilizing the fundamental naturopathic principals. He prides himself on developing health care concepts that can be grasped and nurtured by his patients, allowing them to comfortably embrace healthy, fulfilling lifestyles.

Soram Singh Khalsa, MD, Vice Chair

Board certified in internal medicine, Dr. Soram Khalsa is a clinical professor of medicine and Chairman of the Advisory Committee for the Environmental Medicine Center of Excellence at Southwest College of Naturopathic Medicine in Phoenix, Arizona. He also serves as Medical Director for the East-West Medical Research Institute.

Dr. Khalsa is a founding member of the American Holistic Medical Association and a founding member of the American Academy of Medical Acupuncture. He is also a member of the Outside Scientific Advisory Board for the NIH-sponsored Center on Botanical Studies at the David Geffen School of Medicine at the University of California, Los Angeles (UCLA). In his private medical practice, he integrates phytotherapeutics, homeopathy, acupuncture and environmental medicine with traditional internal medicine.

Dr. Khalsa graduated from Yale University and attended Case Western Reserve School of Medicine in Cleveland. After an internship at St. Luke's Hospital in Cleveland, he completed a residency at the Hospital of the Good Samaritan in Los Angeles. He continued his study of complementary medicine in North America, as well as Europe and Asia. He is an associate physician in the Division of Internal Medicine at Cedars-Sinai Medical Center.

Cynthia Watson, MD

Cynthia Mervis Watson is board certified in family medicine and is the medical director of Watson Wellness in Santa Monica, California. She is a staff member of Santa Monica UCLA and St. John's Hospital and also serves as a clinical faculty instructor in the Department of Family Medicine at UCLA. In her practice, Dr. Watson takes an integrative healing approach to medicine using natural hormone therapy, nutrition, herbal medicine, and homeopathy.

Dr. Watson has written several books and articles. Love Potions, A Guide to Aphrodisiacs and Sexual Pleasures was initially published in 1993 and an updated edition was released in June of 2003. Her other publications include: User's Guide to Easing Menopausal Symptoms Naturally, a guide for women wanting to use a natural approach to menopause and All About Lipoic Acid. She was a co-author on "Improved Immune Activation Markers in Chronic Fatigue and Immune Dysfunction (CFIDS) Patients Treated with Thymic Protein A", published in the Journal of Nutritional and Environmental Medicine.

In 1973, Dr. Watson studied herbal and homeopathic medicine in a one-year work-study program at a naturopathic hospital in the Black Forest region of Germany. From there she returned to the U.S. to complete her bachelor's degree in chemistry at Duquesne University in Pittsburgh, graduating Magna

Cum Laude. She received an award for Excellence in the Sciences as well as the American Chemical Society Award for Research in Physical Chemistry.

After graduating, Dr. Watson worked as a research technician at the University of Southern California School of Medicine, where she went on to complete her medical training and residency in Family Medicine. She was awarded an ARCS scholarship for gifted students. In 1999, she completed the UCLA training in medical acupuncture.

Dr. Watson is a case reviewer for the Medical Board of California. She is a member of the American Academy of Family Medicine, the American Academy of Medical Acupuncture, the National Institute of Homeopathy, and the American College for Advancement in Medicine. In 2004, Dr. Watson was appointed to be a physician representative on the California Bureau of Naturopathic Medicine Advisory Council. She serves on both the Formulary Committee and the Naturopathic Childbirth Attendance Committee. Dr. Watson has lectured on various aspects of integrative medicine and nutrition at hospitals, schools and CME programs including Kaiser, UCLA and St. Johns Hospital.

Mary Hardy, MD

Dr. Mary Hardy, board certified in internal medicine and a specialist in botanical and integrative medicine, has actively combined complementary and alternative therapies with traditional Western medicine for many years.

A graduate of Louisiana State University School of Medicine in New Orleans, Dr. Hardy completed her internal medicine residency at the Tufts New England Medical Center before studying medical ethics at Harvard Divinity School and Loma Linda University. She completed advanced training in botanical medicine at the Institute for Medical Herbalism and has studied with practitioners in Peru, Kenya, South Africa and China. She is the complementary and alternative medicine expert for a number of research projects conducted by the Southern California Evidence Based Practice Center at the RAND Corporation. In addition, she has expanded her interest in botanical research by serving for two and half years as the Associate Director of the UCLA Botanical Research Center, funded by the National Institutes of Health.

Dr. Hardy also serves on the scientific advisory board of the American Botanical Council and the editorial boards of Alternative Medicine Alert, Alternative Therapies in Women's Health, Evidence Based Complementary and Alternative Medicine, FACT as well as Phytomedicine. Dr. Hardy is recognized as an authority on integrative medicine and natural products by organizations such as the Office of Dietary Supplements, the California Medical Board, the American Medical Association, the American Pharmaceutical Association, CBS, NBC, Discovery Channel, and the Los Angeles Times. She is a founding member of

the Advisory Council for the newly established California Bureau of Naturopathic Medicine.

The multi-disciplinary clinic she founded at Cedars-Sinai in the department of Medicine in 1998 allowed her to explore the practical and philosophical issues that both facilitate and impede the development of Integrative Medicine as a discipline. Contributing to the national development of integrative medicine, she serves as the Co-chairperson of the Clinical Practice Committee of the Academic Consortium of Integrative Medicine (an organization of the leading medical schools practicing and teaching in this area).

Most recently she is serving as the co-director of the Integrative Medicine Health and Wellness Program at the Venice Family Clinic, the largest free clinic in the United States. Her clinical practice now involves educating cancer patients in integrative therapies at the Ted Mann Family Integrative Oncology Program at UCLA.

Her current research interests include reviewing the evidence for the safety and efficacy of natural therapies, especially botanicals. Dr. Hardy's recently completed a book for Reader's Digest, *Best Remedies* that focuses on Integrative Medicine. She is also conducting a review of the quality of research trials in herbal medicine and is finishing a systematic review on the effects of dietary supplements on coagulation for the Office of Dietary Supplements.

Trevor Holly Cates, ND

Dr. Trevor Holly Cates received a Doctor of Naturopathic Medicine degree from the National College of Naturopathic Medicine and is a licensed naturopathic doctor in California. Co-founder of the Santa Barbara Center for Natural Medicine, Dr. Cates provides individualized naturopathic care with a focus on women and children's healthcare. Dr. Cates was appointed by Governor Schwarzenegger to the Bureau of Naturopathic Medicine Advisory Council of which she serves as vice-chairperson. She is a member of the American Association of Naturopathic Physicians, the National Center for Homeopathy, the Homeopathic Association of Naturopathic Physicians, the California Naturopathic Doctors Association, and the Holistic Pediatric Association.

Paul Mittman, ND

Paul Mittman, ND, DHANP, graduated from National College of Naturopathic Medicine in 1985. He completed a 2 year residency, and later directed research on natural therapies at the College. Dr. Mittman's practice integrates the foundations of naturopathic medicine – improved nutrition, lifestyle enhancement through exercise and stress reduction, with homeopathy and botanical medicine. A Diplomate of the Homeopathic Academy of Naturopathic Physicians, Dr. Mittman has been the editor of Simillimum and the New England Journal of

Homeopathy and is a respected lecturer in the field of homeopathy. He is currently the President of Southwest College of Naturopathic Medicine in Tempe, Arizona.

Dr. Mittman is a member of the Board of Directors of the American Association of Naturopathic Physicians and is a member of the Phoenix 100 Rotary Club. He received the President's Award for Naturopathic Physicians in 1990 and 2000, and Arizona Naturopathic Physician of the Year for 2000. He has appeared on numerous radio and television shows as an authority on naturopathic medicine.

His double-blind study on the treatment of Allergic Rhinitis in *Planta Medica* was the first study published by an ND in an international peer reviewed journal.

Michael Traub, ND

Michael Traub, ND, DHANP, CCH was the first naturopathic physician in contemporary times to be appointed to a hospital staff – North Hawaii Community Hospital (NHCH). He was Chairman of the Integrated Healing Committee from the opening of the hospital in 1996 until 2001 and succeeded in gaining approval for the natural medicine formulary in the hospital including botanical, nutritional and homeopathic medicines. In 1998 he developed the Hawaii Residency Training Program at NHCH and served as the Residency Program Director until 2002. He conducted a pilot study at the hospital of integrated treatment programs for breast cancer.

From 2001-2003, Dr. Traub served as President of the American Association of Naturopathic Physicians (AANP). He remains a member of the AANP's Scientific Affairs Committee.

Dr. Traub has held numerous other leadership positions within the naturopathic profession throughout his career, from Chairman of the Hawaii Board of Naturopathic Examiners to President of the Homeopathic Academy of Naturopathic Physicians and President of the North American Board of Naturopathic Examiners.

He has been invited to make presentations at numerous medical conferences, including the 1999 International Conference on HIV/AIDS in Paris. He is the author of "Essentials of Dermatological Diagnosis and Natural Therapeutics." He is a member of the Executive Committee of the Integrated Healthcare Policy Consortium and was co-author of the "Final Report of the National Policy Dialogue to Advance Integrated Health Care: Finding Common Ground, 2001-2002."

Since 1986, Dr. Traub has been Director of an integrated health care center (Lokahi Health Center) in Kailua Kona, Hawaii. He has a

part-time practice in Marin County, California.

Arthur Presser, Pharmacist

Arthur M. Presser, PharmD, DHPh, is an Adjunct Assistant Professor of Pharmacy Practice at the University of Southern California School of Pharmacy and the Curriculum Coordinator of the Complimentary and Alternative Medicine Program. After beginning his career in conventional pharmacy in 1969, he switched his focus to integrative medicine in 1980. Dr. Presser is the author of three books in this field, including the *Pharmacist's Guide to Medicinal Herbs*, *The Nature Pharmacist's Vitamin Primer* and *The Medicinal Herb Primer*, his work has also been featured in numerous health magazines and newsletters. He is a frequent guest lecturer on complementary and alternative medicine for consumers, retailers and health professionals, and has appeared on many television and radio shows. Presser has committed himself to spending more time educating consumers, retailers, and health professionals alike in the safe use of nutrients and herbals to promote a higher level of wellness. To this end he is currently also the President of Huntington College of Health Sciences, a fully accredited distance learning institution.

Larry Woodhouse, Pharmacist

Larry Woodhouse is Director of Product and Business Development at McGuff Company, McGuff Compounding Pharmacy Services and McGuff Pharmaceuticals and Editor of the McGuff Company and Compounding Pharmacy Newsletter. He received Doctor of Pharmacy Degree from University of California, San Francisco School of Pharmacy and participated in an American Society of Health System Pharmacist Residency at the University of California, Irvine Medical Center.